

In the Claims

Please amend claims 1, 12, 45, 78, and 82 as shown below.

Please cancel claim 88 without prejudice.

AS 1. (currently amended) A method for routing a message, comprising the steps of:
receiving an email message which includes at least a destination address and may include message content, the destination address including a telecommunications number in place of at least a conventional domain name, wherein the destination address domain name is free of periods;

attempting to obtain a delivery addressing index which corresponds to the telecommunications number in the destination address;

selecting at least one delivery mode; and

if message content is present and a delivery addressing index is obtained, advancing the email message content for delivery using at least one selected delivery mode and the delivery addressing index.

2. (original) The method of claim 1, wherein the addressing index includes an email address.

3. (original) The method of claim 1, wherein the addressing index includes a web site address.

4. (original) The method of claim 1, wherein the step of selecting a delivery mode is performed at the direction of a message sender.

5. (original) The method of claim 1, wherein the step of selecting a delivery mode is performed at the direction of a message recipient.

6. (original) The method of claim 1, wherein the telecommunications number used as the destination address is a publicly listed number.

7. (original) The method of claim 6, wherein the publicly listed number is obtained through directory assistance.

8. (original) The method of claim 1, wherein the telecommunications number used as the destination address is an unlisted number.

AS 9. (original) The method of claim 1, wherein the telecommunications number used as the destination address includes a toll-free number.

10. (original) The method of claim 1, wherein the telecommunications number used as the destination address includes a 900 toll number.

11. (original) The method of claim 1, wherein the receiving step receives an email message containing an origin address, the origin address including an origin telecommunications number.

12. (currently amended) The method of claim 11, further comprising the step of responding to the email message using the origin address as the new destination address whose domain name is free of periods.

13. (original) The method of claim 11, wherein the origin telecommunications number is used in place of a conventional alphanumeric origin address domain name.

14. (original) The method of claim 1, wherein the receiving step receives an email message whose destination address contains no alphabetic domain name.

15. (original) The method of claim 1, wherein the receiving step receives an email message whose destination address contains the telecommunications number as the domain name.

16. (original) The method of claim 1, wherein the receiving step receives an email message whose destination telecommunications number is a pre-existing voice line number identifying a telephone number which can also be used for live voice communications.

17. (original) The method of claim 1, wherein the receiving step receives an email message whose destination telecommunications number is a pre-existing voice line number identifying a telephone number which can also be used for voicemail communications.

18. (original) The method of claim 1, wherein the receiving step receives an email message whose destination telecommunications number is a pre-existing fax line number identifying a fax number which can also be used for fax-to-fax communications.

19. (original) The method of claim 1, wherein the receiving step receives an email message whose destination telecommunications number is a pre-existing internet connection line number identifying an internet connection number which can also be used for internet access.

20. (original) The method of claim 1, wherein the receiving step receives an email message whose message content is located at least in part in text in a subject field.

21. (original) The method of claim 1, wherein the receiving step receives an email message whose message content is located at least in part in text in a message field.

22. (original) The method of claim 1, wherein the receiving step receives an email message whose message content is located at least in part in text in an attached file.

23. (original) The method of claim 1, wherein the receiving step receives an email message whose message content is formatted according to Multipurpose Internet Mail Extensions format.

24. (original) The method of claim 1, wherein the attempting step attempts to obtain a delivery email address that includes an alphanumeric user name and an alphanumeric domain name.

25. (original) The method of claim 1, wherein the attempting step attempts to obtain a delivery email address that includes attribute-value pairs.

26. (original) The method of claim 1, wherein the attempting step attempts to obtain a delivery addressing index using a database maintained on a client machine on which the email message was composed.

27. (original) The method of claim 1, wherein the attempting step uses the telecommunications number as an index into a database of public keys to obtain a public key corresponding to the telecommunications number.

28. (original) The method of claim 1, wherein the attempting step attempts to obtain a delivery addressing index using a database maintained on an email server machine.

29. (original) The method of claim 28, wherein the email server machine utilizes Simple Mail Transfer Protocol.

30. (original) The method of claim 1, wherein the attempting step attempts to obtain a delivery addressing index using a database maintained on an email gateway which separates a network from the Internet, and the email message was composed on a machine in the network.

31. (original) The method of claim 1, wherein the selecting step selects voice delivery as a delivery mode.

32. (original) The method of claim 1, wherein the advancing step uses a wireless communications link.

33. (original) The method of claim 1, wherein the attempting step succeeds in obtaining a delivery email address as the addressing index and the selecting step selects email text delivery as a delivery mode.

34. (original) The method of claim 33, wherein the selecting step also selects voice delivery as a delivery mode and the advancing step comprises synthesizing speech from text in the email message content and then delivering the synthesized speech to a recipient at the telecommunications number.

35. (original) The method of claim 34, wherein the delivering step delivers the synthesized speech to a voicemail box recipient.

36. (original) The method of claim 34, wherein the delivering step delivers the synthesized speech to a live recipient.

37. (original) The method of claim 33, wherein the selecting step also selects fax delivery as a delivery mode and the advancing step comprises generating a fax containing the email message content and then delivering the fax to a fax machine at the telecommunications number.

38. (original) The method of claim 1, wherein the attempting step fails to obtain an email address, the selecting step selects voice delivery as a delivery mode, and the advancing step comprises synthesizing speech from text in the email message content and then delivering the synthesized speech to a recipient at the telecommunications number.

39. (original) The method of claim 38, wherein the delivering step delivers the synthesized speech to a voicemail box recipient.

40. (original) The method of claim 38, wherein the delivering step delivers the synthesized speech to a live recipient.

41. (original) The method of claim 1, wherein the attempting step fails to obtain a delivery email address, the selecting step selects fax delivery as a delivery mode, and the advancing step comprises generating a fax containing the email message content and then delivering the fax to a fax machine recipient at the telecommunications number.

42. (original) The method of claim 1, wherein the telecommunications number is subject to call forwarding to a second telecommunications number, and the advancing step comprises delivering the email message content to a recipient at the second telecommunications number.

43. (original) The method of claim 1, wherein the telecommunications number is subject to call forwarding to a second telecommunications number, the attempting step attempts to obtain a delivery email address using a database which is accessed using the second telecommunications number and which uses the telecommunications number as a pointer to the delivery email address within the database, and the advancing step comprises delivering the email message content to a recipient reached using the email address.

44. (original) The method of claim 1, wherein the telecommunications number identifies a pager, and the advancing step comprises delivering the email message content to the pager.

45. (currently amended) A system for routing messages, comprising:
an email receiver which receives an email message that includes at least a destination address and message content, the destination address including a telecommunications number in place of at least a domain name, wherein the destination address domain name is free of periods;

an address matcher which attempts to obtain a delivery email address that corresponds to the telecommunications number in the destination address;

a mode selector that selects at least one delivery mode; and

a deliverer that advances the email message content for delivery using at least one selected delivery mode.

46. (original) The system of claim 45, wherein the mode selector selects a mode in response to instructions from a message sender.

47. (original) The system of claim 45, wherein the mode selector selects a mode in response to instructions from a message recipient.

48. (original) The system of claim 47, wherein the mode selector selects a mode in response to at least one rule previously specified by the message sender.

49. (original) The system of claim 45, further comprising a telecommunications number detector that determines whether the email destination address contains a telecommunications number, and an email diverter.

50. (original) The system of claim 49, wherein the email diverter diverts the email to a predefined location.

51. (original) The system of claim 49, wherein the email diverter diverts the email to a location identified by modifying the delivery destination address.

52. (original) The system of claim 45, wherein the email receiver comprises a client email program running on a client machine.

53. (original) The system of claim 45, wherein the email receiver comprises a groupware program running on a client machine.

54. (original) The system of claim 45, wherein the address matcher comprises a database which places telecommunications numbers in correspondence with delivery email addresses.

55. (original) The system of claim 54, wherein the system includes a database interface which places telecommunications numbers and delivery addressing indexes in the database to create correspondences between them.

56. (original) The system of claim 55, wherein the database interface authenticates telecommunications numbers before placing them in the database.

57. (original) The system of claim 56, wherein the database interface authenticates telecommunications numbers using automatic number identification.

58. (original) The system of claim 56, wherein the database interface authenticates telecommunications numbers using a digital signature.

59. (original) The system of claim 54, wherein the database is maintained by a regional Bell operating company.

60. (original) The system of claim 54, wherein the database includes an X.500 database.

61. (original) The system of claim 54, wherein the database includes an X.509 database.

62. (original) The system of claim 45, wherein the mode selector recognizes configuration flags.

63. (original) The system of claim 62, wherein the configuration flags specify for at least one destination that voice delivery should be used only if no delivery email address is obtained.

64. (original) The system of claim 62, wherein the configuration flags specify for at least one destination that voice delivery should be used even if a delivery email address is obtained.

65. (original) The system of claim 62, wherein the configuration flags specify for at least one destination that email delivery, voice delivery, pager delivery, and fax delivery should each be attempted.

66. (original) The system of claim 62, wherein the configuration flags for at least one destination specify that delivery should be attempted multiple times until a delivery confirmation is received.

67. (original) The system of claim 45, wherein the deliverer comprises a speech synthesizer which converts email message content text into voice message content.

68. (original) The system of claim 45, wherein the deliverer comprises computer-implemented natural language translation.

69. (original) The system of claim 45, wherein the deliverer delivers a natural language translation prepared by a person.

70. (original) The system of claim 45, wherein the deliverer comprises a fax generator which converts email message content text into fax message content for delivery to a fax machine as recipient.

ab 71. (original) The system of claim 45, further comprising an email sender, wherein the email sender comprises a messaging service in a telecommunications system.

72. (original) The system of claim 71, wherein the messaging service is accessed by message originators through a toll-free telephone number.

73. (original) The system of claim 45, wherein the deliverer comprises a speech-to-text generator which converts speech into written message content.


74. (original) The system of claim 45, wherein the deliverer performs video streaming to deliver message content.

75. (original) The system of claim 45, wherein more than one entity has a delivery email address that corresponds to the telecommunications number in the destination address and the address matcher attempts to obtain a delivery email address for an entity that is geographically nearest an originator of the email message.

76. (original) The system of claim 45, comprising an authentication means for authenticating an originator of the email message.

77. (original) The system of claim 45, wherein the mode selector comprises a visual interface.

78. (currently amended) A computer storage medium having a configuration that represents data and instructions which will cause at least a portion of a system to perform method steps for routing messages, the method steps comprising the steps of:

 receiving an email message which includes at least a destination address and may include message content, the destination address including a telecommunications number in place of at least a conventional domain name, wherein the destination address domain name is free of periods;

attempting to obtain a delivery addressing index which corresponds to the telecommunications number in the destination address; and

if message content is present and a delivery addressing index is obtained, advancing the email message content for delivery using the delivery addressing index.

79. (original) The configured storage medium of claim 78, wherein the delivery addressing index includes a delivery email address.

80. (original) The configured storage medium of claim 78, wherein the attempting step uses the telecommunications number as an index into a database of public keys to obtain a public key corresponding to the telecommunications number.

81. (original) The configured storage medium of claim 78, wherein the attempting step attempts to obtain a delivery email address using a database maintained on an email gateway which separates a network from the Internet, and the email message was composed on a machine in the network.

82. (currently amended) A signal embodied in computer system, comprising an email message which contains a telecommunications number as an email address in place of at least an alphanumeric domain name, wherein the email address domain name is free of periods.

83. (original) The signal of claim 82, the email message further comprising an origin telecommunications number used as an email origin address.

84. (original) The signal of claim 82, further comprising at least one configuration flag which specifies at least one email delivery mode.

85. (original) The signal of claim 82, further comprising at least one configuration flag which specifies a staggered delivery mode.

86. (original) The signal of claim 82, further comprising at least one configuration flag which specifies a wireless delivery mode.

87. (original) The signal of claim 82, wherein the email message contains video content.

88. (currently cancelled) A signal embodied in computerized telecommunications system, comprising a database which creates correspondences between telecommunications numbers and email addresses, each telecommunications number also allowing at least one of voice, fax, wireless, and pager communications independently of any email messaging system.